

No. 7-2007 MONTHLY PACIFIC ENSO DISCUSSION FOR MICRONESIA AND AMERICAN SAMOA

July 2007

The Pacific ENSO Applications Center (PEAC) disseminated the second quarter 2007 newsletter (refer to <http://www.soest.hawaii.edu/MET/Enso.html>). The third quarter newsletter is being prepared. The Climate Prediction Center (CPC) stated the following in its June 7, 2007 *ENSO Diagnostic Discussion* (refer to <http://www.cpc.ncep.noaa.gov>): **“ENSO-neutral conditions are expected to continue during the next 2 months, with ENSO-neutral or La Niña conditions equally likely thereafter.”** In addition, the CPC noted: “ENSO-neutral conditions continued in the tropical Pacific during June 2007, with average to below-average sea surface temperatures (SSTs) extending from the date line to the west coast of South America. The CPC also observed: “The upper-ocean heat content (average temperatures in the upper 300 m of the ocean) in the central and east-central equatorial Pacific remained below-average, but departures were less negative.” Regional observations indicated stronger than normal trade winds in the west-central equatorial Pacific and suppressed cloudiness east of the date line. The CPC concludes: “Collectively, these oceanic and atmospheric patterns are consistent with ENSO-neutral conditions.”

Nearly all of the latest climate forecast models predict a continued pattern of below-average equatorial SSTs in the central Pacific during the remainder of the year. Statistical climate models indicate the continuation of ENSO-neutral or a slow transition to weak La Niña, while most dynamic models suggest a more rapid transition to La Niña. CPC concludes: “Given the large spread in ENSO forecasts, along with the slower than expected decrease in observed SSTs over the past few months, it is reasonable to expect either a slower evolution toward La Niña conditions or the continuation of ENSO-neutral conditions.”

Conditions in the region now exhibit an ENSO-neutral pattern, with some La Niña-like traits. For example, tropical cyclone activity to-date has been below normal and displaced to the west. Rainfall has returned to near-normal over most areas, but typical of the ENSO-neutral pattern, there is high month-to-month variability in the rainfall. As Typhoon Man-yi was developing around 8 to 10 July, it brought minimal tropical storm conditions to the Mariana Islands and to Yap State. Yap and Palau received enhanced rainfall from the associated monsoon flow, but rainfall in the Marianas was not plentiful.

The South Pacific Convergence Zone has been fairly active over the Samoa region, keeping conditions wetter than expected. This pattern is expected to continue and should keep the region wetter than normal. Easterly trade winds should continue to dominate the flow in eastern Micronesia (Pohnpei and eastward), and keep rainfall average to slightly below average. Monsoon and storm activity will have more influence in western Micronesia (Chuuk and westward), and these areas will likely see average to slightly above average rainfall. The Marianas will have near average rainfall. The trade winds and sub-surface heating in the western North Pacific will keep sea levels above normal.

PREPARED BY NOAA'S NATIONAL WEATHER SERVICE

Coordinated with the Climate Prediction Center and the Pacific ENSO Applications Center.